

In the Claims:

1-21. (Canceled)

22. (Currently Amended) A method for the production of soluble HLA molecules in a cell pharm having an appropriate growth media therein, comprising the steps of:

- obtaining gDNA which **from a source wherein a portion of the gDNA** encodes a **desired** HLA allele;
- amplifying the allelic gDNA **creating a PCR product encoding a soluble form of the desired HLA molecule** by PCR **amplification of the gDNA encoding the desired HLA allele**, wherein the amplification utilizes at least one locus-specific primer having a stop codon incorporated into a 3' primer thereby resulting in a truncated PCR product ~~having the coding regions encoding~~ **that does not encode the** cytoplasmic and transmembrane domains of the ~~allelic gDNA removed such that the truncated~~ **desired HLA molecule, thereby producing a** PCR product has ~~a coding region encoding~~ **that encodes** a soluble HLA molecule;
- inserting the ~~truncated~~ PCR product into a mammalian expression vector to form a plasmid containing the ~~truncated~~ PCR product ~~having the coding region encoding the soluble HLA molecule;~~

- electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell; and
 - inoculating the cell pharm with the at least one suitable host cell containing the plasmid ~~containing the truncated PCR product~~ such that the cell pharm produces soluble HLA molecules.
23. (Original) The method according to claim 22, further comprising the step of harvesting the soluble HLA molecules from the cell pharm.
24. (Original) The method according to claim 22, wherein the soluble HLA molecules are Class I HLA molecules or Class II HLA molecules.
25. (Currently Amended) The method according to claim 22, wherein, in the step of obtaining gDNA ~~which encodes a HLA allele~~ **from a source**, the gDNA is obtained from blood, saliva, hair, semen, or sweat.
26. (Currently Amended) The method according to claim 22, wherein, in the step of inserting the ~~truncated~~ PCR product into a mammalian expression vector, the mammalian expression vector contains a promoter that facilitates increased expression of the ~~truncated~~ PCR product.

27. (Currently Amended) The method according to claim 22, wherein, in the step of electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell, the suitable host cell lacks expression of Class I HLA molecules.
28. (Currently Amended) A method for the production of soluble HLA molecules in a cell pharm having an appropriate growth media therein, comprising the steps of:
- obtaining gDNA encoding **from a source wherein a portion of the gDNA encodes a desired** HLA allele;
 - isolating ~~HLA allele~~ mRNA from gDNA and reverse transcribing the mRNA to obtain allelic cDNA, **wherein the mRNA contains mRNA encoding the desired HLA allele and thus the cDNA contain cDNA encoding the desired HLA allele;**
 - ~~amplifying the allelic cDNA~~ **creating a PCR product encoding a soluble form of the desired HLA allele** by PCR **amplification of the cDNA encoding the desired HLA allele**, wherein the amplification utilizes at least one locus-specific primer ~~that truncates the allelic cDNA, thereby resulting in a truncated~~ **and results in a** PCR product having the coding regions encoding **that does not encode the** cytoplasmic and transmembrane domains

- of the ~~allelic cDNA removed such that the truncated PCR product~~
has a coding region encoding **desired HLA molecule, thereby**
producing a PCR product that encodes a soluble HLA molecule;
- inserting the ~~truncated~~ PCR product into a mammalian expression vector to form a plasmid containing the ~~truncated~~ PCR product ~~having the coding region~~ encoding a soluble HLA molecule;
 - electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell; and
 - inoculating the cell pharm with the at least one suitable host cell containing the plasmid ~~containing the truncated PCR product~~ such that the cell pharm produces soluble HLA molecules.
29. (Original) The method according to claim 28, further comprising the step of harvesting the soluble HLA molecules from the cell pharm.
30. (Original) The method according to claim 28, wherein the soluble HLA molecules are Class I HLA molecules or Class II HLA molecules.
31. (Currently Amended) The method according to claim 28, wherein in the step of obtaining gDNA ~~which encodes a HLA allele~~ **from a source**, the gDNA is obtained from blood, saliva, hair, semen, or sweat.

32. (Currently Amended) The method according to claim 28, wherein, in the step of ~~amplifying the allelic cDNA by PCR~~ **creating a PCR product**, the locus-specific primer includes a sequence encoding a tail such that the soluble HLA molecule encoded by the ~~truncated~~ PCR product contains a tail attached thereto that facilitates in purification of the soluble HLA molecules produced therefrom.
33. (Currently Amended) The method according to claim 28, wherein in the step of inserting the ~~truncated~~ PCR product into a mammalian expression vector, the mammalian expression vector contains a promoter that facilitates increased expression of the ~~truncated~~ PCR product.
34. (Currently Amended) The method according to claim 28, wherein in the step of electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell, the suitable host cell lacks expression of Class I HLA molecules.
35. (Currently Amended) A method for the production of soluble HLA molecules in a cell pharm having an appropriate growth media therein, comprising the steps of:

- obtaining gDNA encoding **from a source, wherein a portion of the gDNA encodes** a HLA allele;
- isolating ~~HLA allele~~ mRNA from gDNA and reverse transcribing the mRNA to obtain allelic cDNA, **wherein the mRNA contains mRNA for the desired HLA allele and thus the cDNA contains cDNA for the desired HLA allele;**
- amplifying the allelic cDNA **creating a PCR product encoding a soluble form of the desired HLA allele** by PCR **amplification of the cDNA encoding the desired HLA allele**, wherein the amplification utilizes at least one locus-specific primer that ~~truncates the allelic cDNA, thereby resulting in a truncated~~ **and results in a** PCR product ~~having the coding regions encoding~~ **that does not encode the** cytoplasmic and transmembrane domains of the ~~allelic cDNA removed such that the truncated PCR product has a coding region encoding~~ **desired HLA molecule, thereby producing a PCR product that encodes** a soluble HLA molecule;
- inserting the ~~truncated~~ PCR product into a mammalian expression vector to form a plasmid containing the ~~truncated~~ PCR product ~~having the coding region encoding~~ a soluble HLA molecule;
- electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell; and

- inoculating the cell pharm with the at least one suitable host cell containing the plasmid ~~containing the truncated PCR product~~ such that the cell pharm produces soluble HLA molecules; wherein the soluble HLA molecules are folded naturally and are trafficked through the cell in such a way that they are identical in functional properties to an HLA molecule expressed from the HLA allele mRNA and thereby bind peptide ligands in an identical manner as full-length, cell-surface-expressed HLA molecules.
36. (Original) The method according to claim 35, further comprising the step of harvesting the soluble HLA molecules from the cell pharm.
37. (Original) The method according to claim 35, wherein the soluble HLA molecules are Class I HLA molecules or Class II HLA molecules.
38. (Currently Amended) The method according to claim 35, wherein in the step of obtaining gDNA ~~which encodes a HLA allele~~ **from a source**, the gDNA is obtained from blood, saliva, hair, semen, or sweat.
39. (Currently Amended) The method according to claim 35, wherein in the step of ~~amplifying the allelic cDNA by PCR~~ **creating a PCR product**, the

at least one locus-specific primer is a 3' primer having a stop codon incorporated therein.

40. (Currently Amended) The method according to claim 35 wherein, in the step of ~~amplifying the allelic cDNA by PCR~~ **creating a PCR product**, the locus-specific primer includes a sequence encoding a tail such that the soluble HLA molecule encoded by the ~~truncated~~ PCR product contains a tail attached thereto that facilitates in purification of the soluble HLA molecules produced therefrom.
41. (Currently Amended) The method according to claim 35 wherein, in the step of inserting the ~~truncated~~ PCR product into a mammalian expression vector, the mammalian expression vector contains a promoter that facilitates increased expression of the ~~truncated~~ PCR product.
42. (Currently Amended) The method according to claim 35 wherein, in the step of electroporating the plasmid containing the ~~truncated~~ PCR product into at least one suitable host cell, the suitable host cell lacks expression of Class I HLA molecules.

43-44. (Canceled)